

*Application Serial No. 09/975,642  
Amendment and Response to 12/21/04 Final Office Action*

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

**AMENDMENTS TO THE CLAIMS:**

Please amend the claims as follows:

1. (Previously and Currently Amended): A method for reducing corrosion of a head element during the manufacture of a disk drive including rework operations, said head element being initially contained within the housing of said disk drive following assembly, said method comprising the steps of:

opening said housing of said disk drive;  
removing said head element from said housing of said disk drive; and  
applying a non-permanent protective coating to said head element; and  
storing said head element following the step of applying said non-permanent protective coating.

2. (Previously Amended): The method, as claimed in Claim 1, further comprising the step of cleaning said head element prior to said step of applying a non-permanent protective coating.

3. (Previously Amended): The method, as claimed in Claim 1, wherein said non-permanent protective coating is applied in a vacuum chamber.

4. (Previously Amended): The method, as claimed in Claim 1, wherein said non-permanent protective coating is applied utilizing solvent-mediated deposition.

5. (Previously Amended): The method, as claimed in Claim 1, wherein said non-permanent protective coating is applied utilizing vapor-mediated deposition.

6. (Previously Amended): The method, as claimed in Claim 1, wherein said step of applying a non-permanent protective coating is performed by depositing precursor molecules in the vapor phase.

*Application Serial No. 09/975,642  
Amendment and Response to 12/21/04 Final Office Action*

7. (Previously Amended): The method, as claimed in Claim 1, wherein said non-permanent protective coating comprises a fluorocarbon polymer.

8. (Previously Amended): The method, as claimed in Claim 1, wherein said non-permanent protective coating is a thickness of greater than 50 angstroms.

9. Cancel.

10. (Previously Amended): The method, as claimed in Claim 1, further comprising the step of post-processing said non-permanent protective coating to enhance the corrosion protection of said head element.

11. (Original): The method, as claimed in Claim 1, further comprising the step of reworking at least one component of said disk drive.

12. (Previously Amended): The method, as claimed in Claim 10, further comprising reworking at least a portion of the disk drive followed by the step of removing at least a portion of said non-permanent protective coating after said step of reworking said disk drive.

13. (Previously Amended): The method, as claimed in Claim 12, further comprising the step of reassembling said disk drive after said step of removing at least said portion of said non-permanent protective coating.

14. (Previously Amended): The method, as claimed in Claim 11, further comprising the step of removing at least a portion of said non-permanent protective coating from said head element after said step of reworking said disk drive.

15. (Previously Amended): The method, as claimed in Claim 14, further comprising the step of reassembling said disk drive after said step of removing at least said portion of said non-permanent protective coating from said head element.

16. (Previously Amended): The method, as claimed in Claim 14, wherein the step of removing at least a portion of said non-permanent protective coating comprises completely exposing said head element after said step of reworking at least a portion of said disk drive.

*Application Serial No. 09/975,642  
Amendment and Response to 12/21/04 Final Office Action*

17. (Previously Amended): The method, as claimed in Claim 16, further comprising the step of reassembling said disk drive after said step of removing at least said portion of said non-permanent protective coating completely exposing said head element.

18. (Original): The method, as claimed in Claim 13, further comprising the step of testing said disk drive after said step of reassembling said disk drive.

19. (Previously Amended): The method, as claimed in Claim 11, further comprising the combination step of simultaneously cleaning said head element while removing said non-permanent protective coating, after said step of reworking at least a portion of said disk drive.

20. (Previously Amended): The method, as claimed in Claim 12, wherein said step of removing at least said portion of said non-permanent protective coating is performed utilizing a solvent.

21. (Previously Amended): The method, as claimed in Claim 19, wherein said step of simultaneously cleaning said non-permanent head element while removing said protective coating, is performed using a non-aqueous solvent.

22. (Previously Amended): The method, as claimed in Claim 10, wherein said post-processing step is performed by exposing said non-permanent protective coating to a form of energy selected from the group consisting of infrared, ultraviolet, plasma, or radiant heat.

23. (Previously Amended): The method, as claimed in Claim 11, further comprising the step of reassembling the disk drive followed by the step of removing at least said portion of said non-permanent protective coating.

24. (Original): The method, as claimed in Claim 23, further comprising the step of testing said disk drive.

25. (Previously Amended): The method, as claimed in Claim 13, further comprising the step of removing at least an additional portion of said non-permanent protective coating after said step of reassembling the disk drive.

*Application Serial No. 09/975,642*  
*Amendment and Response to 12/21/04 Final Office Action*

26. (Original): The method, as claimed in Claim 25, further comprising the step of testing said disk drive.

27. (Previously Amended): The method, as claimed in Claim 15, further comprising the step of removing at least an additional portion of said non-permanent protective coating from said head element after said step of reassembling said disk drive.

28. (Original): The method, as claimed in Claim 27, further comprising the step of testing said disk drive.

29. (Previously Amended): The method, as claimed in Claim 1, wherein said non-permanent protective coating has a thickness comprising at least one monolayer.

30. (Previously Amended): The method, as claimed in Claim 1, wherein said non-permanent protective coating has a thickness comprising at least 50 angstroms.

31. (Previously Amended): The method, as claimed in Claim 1, wherein said non-permanent protective coating is applied having a thickness up to approximately 250 angstroms.

32. (Withdrawn): In a disk drive having at least one head element, said disk drive having been opened after assembly for purposes of reworking, and the head element having been removed, the improvement comprising:

a protective coating applied to said head element after removal of the head element to reduce corrosive effects from the surrounding atmosphere.

33. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating is applied in a vacuum chamber.

34. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating is applied utilizing a solvent-mediated deposition process.

35. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating is applied utilizing a vapor-mediated deposition process.

*Application Serial No. 09/975,642*  
*Amendment and Response to 12/21/04 Final Office Action*

36. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating comprises a fluorocarbon polymer.

37. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating is a thickness of greater than 50 angstroms.

38. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating is applied by depositing precursor molecules in the vapor phase.

39. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating is exposed to an energy source selected from the group consisting of infrared, ultraviolet, plasma, or radiant heat.

40. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating thickness comprises at least one monolayer.

41. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating thickness comprises at least 50 angstroms.

42. (Withdrawn): The improvement, as claimed in Claim 32, wherein said protective coating is applied having a thickness up to approximately 250 angstroms.

43. (Previously Amended): A method for shipping a head element removed from a disk drive during manufacture of said disk drive, said method comprising the steps of:  
removing said head element from said disk drive;  
applying a protective coating to said head element;  
mounting said head element to a shipping comb;  
placing said head element into a container; and,  
transporting said container.

44. (Original): The method, as claimed in Claim 43, further comprising the step of cleaning said head element prior to said step of applying a protective coating.

45. Previously cancelled.

*Application Serial No. 09/975,642*  
*Amendment and Response to 12/21/04 Final Office Action*

46. (Previously Amended): The method, as claimed in Claim 43, wherein said step of applying said protective coating to said head element occurs following mounting said element to said shipping comb.

47. (Previously and Currently Amended): A method for storing a head element removed from a disk drive, said method comprising the steps of:

removing said head element from said disk drive;  
applying a fluorocarbon polymer protective coating to said head element; and,  
mounting said head element to a slipping comb; and  
placing said head element in a storage container.

48. (Previously Amended): The method, as claimed in Claim 47, further comprising the step of cleaning said head element prior to said step of applying said protective coating.

49. Cancel.

50. (Previously Amended): The method, as claimed in Claim 49, wherein said step of applying said protective coating to said head element occurs following mounting said head element to said shipping comb.

51. (Previously and Currently Amended): A method for manufacturing a disk drive, comprising:

disassembling a portion of the disk drive;  
removing a head element from the disk drive;  
applying a temporary protective coating on said head element after disassembly  
wherein disassembly includes removal of the head element from the disk drive;  
reworking a portion of the disk drive; and  
removing at least a portion of said temporary protective coating after said step of  
reworking a portion of the disk drive.

52. (Previously Amended): The method of Claim 51, further comprising mounting said head element on a shipping comb.

*Application Serial No. 09/975,642*  
*Amendment and Response to 12/21/04 Final Office Action*

53. (Previously Amended): The method of Claim 51, wherein applying said temporary protective coating on said head element comprises applying a polymeric fluorocarbon.

54. (Previously Amended): The method of Claim 51, further comprising applying said temporary protective coating using a solvent-mediated deposition process.

55. (Previously Amended): The method of Claim 51, further comprising applying said temporary protective coating using a vapor-mediated deposition process.

56. (Previously Amended): The method of Claim 51, further comprising applying said temporary protective coating by depositing precursor molecules in the vapor phase.

57. (Previously Amended): The method of Claim 51, wherein said temporary protective coating is applied at a thickness of greater than 50 angstroms.

58. (Previously Amended): The method of Claim 57, further comprising exposing said temporary protective coating to a solvent.

59. (Previously Amended): The method of Claim 54, further comprising post processing said temporary protective coating to enhance the corrosion protection of said protective coating.

60. (Previously Amended): The method of Claim 59, further comprising exposing said temporary protective coating to an energy source selected from the group consisting of infrared, ultraviolet, plasma, or radiant heat.

61. (Previously Amended): The method of Claim 51, wherein said temporary protective coating is applied at a thickness comprising at least one monolayer.

62. (Previously Amended): The method of Claim 51, wherein said temporary protective coating is applied at a thickness comprising at least 50 angstroms.

63. (Previously Amended): The method of Claim 51, wherein said temporary protective coating is applied at a thickness up to approximately 250 angstroms.

64. Cancel.

*Application Serial No. 09/975,642  
Amendment and Response to 12/21/04 Final Office Action*

65. (Previously Added): A method for reducing corrosion of a head element during the manufacture of a disk drive including rework operations, said head element being initially contained within the housing of said disk drive following assembly, said method comprising the steps of:

opening said housing of said disk drive;

removing said head element from said housing of said disk drive;

applying a protective coating to said head element;

reworking at least a portion of the disk drive; and

removing at least a portion of said protective coating after said step of reworking said disk drive.

Please add the following new claims:

66. (New): The method, as claimed in Claim 65, further comprising the step of reassembling said disk drive after said step of removing at least said portion of said protective coating.

67. (New): The method, as claimed in Claim 66, further comprising the step of removing at least an additional portion of said protective coating after said step of reassembling the disk drive.

68. (New): The method, as claimed in Claim 67, further comprising the step of testing said disk drive.

69. (New): The method, as claimed in Claim 65, further comprising the step of removing at least a portion of said protective coating from said head element after said step of reworking said disk drive.

70. (New): The method, as claimed in Claim 69, wherein the step of removing at least a portion of said protective coating comprises completely exposing said head element after said step of reworking at least a portion of said disk drive.

*Application Serial No. 09/975,642  
Amendment and Response to 12/21/04 Final Office Action*

71. (New): The method, as claimed in Claim 69, further comprising the step of testing said disk drive after said step of reassembling said disk drive.

72. (New): The method, as claimed in Claim 65, further comprising the step of post-processing said protective coating to enhance the corrosion protection of said head element.

73. (New): The method, as claimed in Claim 72, wherein said post-processing step is performed by exposing said protective coating to a form of energy selected from the group consisting of infrared, ultraviolet, plasma, or radiant heat.

74. (New): The method, as claimed in Claim 65, wherein said step of removing at least said portion of said protective coating is performed utilizing a solvent.

75. (New): The method, as claimed in Claim 65, wherein said protective coating has a thickness comprising at least one monolayer.

76. (New): The method, as claimed in Claim 65, wherein said protective coating has a thickness comprising at least 50 angstroms.

77. (New): The method, as claimed in Claim 65, wherein said protective coating is applied having a thickness up to approximately 250 angstroms.

78. (New): The method as claimed in Claim 65, wherein said protective coating comprises a fluorocarbon polymer.

79. (New): A method for reducing corrosion of a head element during the manufacture of a disk drive including rework operations, said head element being initially contained within the housing of said disk drive following assembly, said method comprising the steps of:

opening said housing of said disk drive;  
removing said head element from said housing of said disk drive;  
applying a non-permanent protective coating to said head element;  
reworking at least one component of said disk drive, and reassembling the disk drive followed by the step of removing at least a portion of said non-permanent protective coating.

*Application Serial No. 09/975,642*  
*Amendment and Response to 12/21/04 Final Office Action*

80. (New): The method, as claimed in Claim 79, further comprising the step of testing said disk drive.

81. (New): The method, as claimed in Claim 79, wherein the step of removing at least a portion of said non-permanent protective coating comprises completely exposing said head element after said step of reworking at least a portion of said disk drive.

82. (New): The method, as claimed in Claim 79, wherein said non-permanent protective coating comprises a fluorocarbon polymer.

83. (New): The method, as claimed in Claim 79, further comprising the step of storing said head element following said step of applying said non-permanent protective coating.

84. (New): The method, as claimed in Claim 79, further comprising the step of post-processing said non-permanent protective coating to enhance the corrosion protection of said head element.